

STATEMENT OF THE PROBLEM

(4.20.05 revised draft)

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Marine mammals have evolved over millions of years and rely on sound for vital life functions.

Anthropogenic sound in the oceans has increased since the start of the industrial revolution, and increases in ambient noise levels, as well as individual sound sources, may cause adverse effects the extent and type of which are not well understood. These sound sources include, among others, vessels, sonar operations, seismic surveys, coastal construction, acoustic harassment devices.

After a series of highly-publicized strandings of cetaceans coincident with exposure to mid-frequency sonar, public concern has increased about the effects of anthropogenic sound. This emerging concern has been acknowledged by a variety of domestic and international fora.

Peer-reviewed scientific literature indicates that marine mammals are affected by exposure to a range of anthropogenic sound in ways varying from inconsequential to harmful, or even lethal. However there are significant gaps in information available to understand and manage these effects.

This is particularly the case because marine mammals are extremely difficult to study, and the marine environment is extraordinarily complex and dynamic.

Federal agencies, researchers, and sound-producing entities are grappling with problems in permitting ocean activities while protecting marine mammals. Management agencies must make decisions about how to manage these effects in the face of substantial uncertainties. While research and substantial resources are needed to refine management and better understand the effects of anthropogenic sound, there is a need to proceed expeditiously with sensible mitigation measures to address potential adverse effects without waiting for complete scientific certainty.

The Advisory Committee recognizes that anthropogenic sound is one of many threats facing marine mammals, such as fisheries bycatch, habitat degradation, ocean pollution, whaling, vessel strikes, and others. The effects of these threats may be cumulative. Consistent with the direction from Congress, we have focused only on effects of anthropogenic sound and not on other threats to marine mammals.